

Application No.: 10/024432

Docket No.: KAQ-003RCE

REMARKS

Claims 1-23 are pending in the application of which claims 1, 16 and 21 are independent. Claims 1, 16, 21 and 22 have been amended. No claims have been added or deleted. No new matter has been added.

Claim Rejections Pursuant to 35 U.S.C. §102(b)

Claims 1-8, 11-12, 16-17 and 21-23 were rejected under 35 U.S.C. §102(b) as being anticipated by Guck (United States Patent Number 5, 848, 415, hereafter "Guck"). For the reasons set forth below, Applicants respectfully traverse the rejections.

Summary of Claimed Invention

The claimed invention provides a mobile content framework (MCF) that facilitates abstracting content and behavior from the rendering of content on a requesting device. Content is abstracted in a manner specifically tailored to take into account the limited resources of certain devices such as mobile device. The abstraction process allows the distribution of uniform content to multiple types of requesting devices. Content is generated specifically for each device, both from a display and attribute standpoint and a content navigation standpoint. The MCF includes a generic markup language, referred to as Wireless Abstract XML (hereafter WAX) that is easily extended and can be translated into a variety of different mobile device markup languages. Content is first translated into WAX from the original language of the content provider, or is created in WAX originally, and then converted into a device appropriate language for a requesting mobile device. WAX is designed to enable the content developer to describe content at a more abstract level than that used in individual protocols. The greater level of abstraction enables the subsequent conversion of WAX into the languages used by the requesting mobile devices such as WML, HDML and HTML. Typical markup languages focus on how content is rendered on the device, while WAX focuses on generic but smart objects whose transformation is tailored to specific devices. During this transformation process, the MCF ensures the best type and length of text is used, the best type and size of image is used, and

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that the content is well suited and customized for the device attributes. The customization process uses device attribute records stored in databases to choose appropriate content for the requesting device.

Summary of Claim Amendments

Applicants have amended independent claims 1, 16 and 21 to indicate specifically that the device-specific content is customized based upon a device attribute in the device information retrieved from a registry containing device information and that the generic markup language is susceptible to being converted to a plurality of markup languages. Applicants have also amended the preamble of claim 21 to a form more appropriate for a medium claim and amended claim 22 to be consistent with the amended claim 21.

Summary of Guck

Guck discusses the use of a transmission protocol and application format conversion process that may be utilized with an object database. Requests from a client device for a document cause the requested document to be retrieved, and if necessary, converted to a transmission protocol and application format required or requested for the requesting client device. The conversion process uses many different converter objects to perform the required transformations. In the event a single converter for the required transformation cannot be identified, the system of Guck allows multiple converters to be chained together to produce the result as part of multi-stage process.

Argument

Guck fails to disclose all of the elements of Applicants independent claims, claims 1, 16 and 21, and therefore fails to anticipate Applicants invention.

Independent claim 1 and the corresponding medium claim 21 (as amended) include the claim limitation of:

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“providing content in a generic markup language, said content in a generic markup language susceptible to being converted to a plurality of markup languages capable of being displayed to a user of a mobile device interfaced with said network;”[emphasis added]

Independent claim 16 has a similar limitation.

The content in the generic markup language is then converted into device specific content with the content being customized based upon a device attribute retrieved from a device registry. Thus, claim 1 as amended further provides:

“converting said content in a generic markup language into device-specific content in response to said request, said device-specific content being customized based upon at least one device attribute in the device information retrieved from the at least one registry” [emphasis added]

Claims 16 and 21 have corresponding limitations.

Applicants respectfully submit, as set forth more fully below, that the cited reference Guck does not disclose the use of content in a generic markup language or the subsequent conversion of that content into a device-specific content that is customized based on an attribute included in device information retrieved from a registry.

The Examiner cited col. 4, lines 40-42 as disclosing the conversion of content from a generic markup language into-device specific content (see page 6 of Office Action mailed 11/16/2005). The cited section reads, “A document can be dynamically converted into a wide range of formats...”. The section makes no mention of the content being stored in a generic markup language that is “susceptible of being converted to a plurality of markup languages that are capable of being displayed to a user of a mobile device” as required by the amended claims. The Examiner further cited col. 4, lines 63-65 which reads “The dynamic conversion technique works equally well for conversion from one resource type to another and/or from one content format to another.” Again, the section makes no mention of the use of a generic markup language that is “susceptible of being converted to a plurality of markup languages capable of being displayed to a user of a mobile device”. In fact, a close reading of Guck suggests that a

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generic markup language is not present as the focus in Guck is on providing a different converter object for each specific document conversion. The Examiner's attention is respectfully directed to column 11, lines 33-35 which state: "In summary, the Converter object type hierarchy has numerous converter objects, each of which can perform a specific conversion"[emphasis added]. See also col. 11, lines 4-7, which state: "The present system is provided with several hundred converters, which handle the conversion of numerous text, image, video, audio and other formats"[emphasis added]. Guck is not discussing the transformation of content appearing in an intermediate generic markup language into device-specific content, but rather is discussing direct conversion from source to target. If Guck was utilizing a generic markup language as the starting point for the conversion process, there would be no need for "several hundred converters". The Examiner's attention is also respectfully directed to Figure 5 which discusses various input and output options for the converter objects and does not rely on a single generic starting point for the conversion.

Applicants' independent claims as amended also require the customization of the content based upon a device attribute. Guck lacks this limitation. Guck discusses converting the application format and the transport protocol being used but not the conversion of content based upon a device attribute. The term "format" "refers to specific arrangement of data on a disk or other storage media in order to meet established application requirements (col. 5, lines 54-57). Example formats given are WORD, HTML and plain text. "Protocol" refers to a set of formal rules describing how to transmit data, especially across a network (col. 5, lines 66-67). Example protocols discussed include FTP, HTTP and IMAP. The Examiner suggested on page 6 of the Office Action (while arguing that the use of the device attribute registry is inherent, an argument that Applicants address below) that Guck would be inoperative if the converted format is not compatible with the client device. Applicants are not suggesting that Guck is delivering format that is incompatible with the requesting device. Applicants are suggesting that Guck does not take the additional step of customizing content based upon device attributes. Applicants have amended the independent claims to clarify that the content is customized based upon a retrieved device attribute. It is quite possible to convert content into an HTML document (format) and transmit it using HTTP (protocol) without customizing it for the screen size (an attribute) of the receiving device. This is exactly the sort of problem that Applicants invention is designed to address (see Background of Applicants' application). Applicants claimed invention customizes

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based upon the requesting device's attributes. Guck represents the prior art system which could deliver documents in a proper format and with the right protocol but did not customize based upon the device attribute.

Since Guck does not disclose either the use of a generic markup language as the starting point for the conversion process or the customizing of that content based upon a device attribute, Applicants respectfully request the allowance of the rejected claims.

Additionally, Applicants' independent claims require the use of a device registry holding device information that includes information about device attributes. The Examiner admitted that Guck did not specifically disclose a device registry but argued that a device registry was inherently disclosed because of the format conversion discussed above. As pointed out previously, customizing content based upon a device attribute is different than customizing the format of the content. The fact that Guck discusses application format conversion cannot be the basis for arguing that it must have a device registry holding information about device attributes. At most, the format conversion in Guck could be relied upon as a basis to infer a registry with application formatting information. Such a registry does not satisfy the requirements of Applicants' independent claims which require a registry with device attribute information. For this reason as well, Applicants request the allowance of all of the rejected claims.

Claim Rejections Pursuant to 35 U.S.C. §103(a)

Claims 9-10, 13-15, and 18-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Guck in view of Bickmore et al (United States Patent No.: 6,857,102, hereafter "Bickmore"). For the reasons set forth below, Applicants respectfully traverse the rejections.

Argument

The combination of references cited by the Examiner, Guck in view of Bickmore, fails to teach or suggest all of the limitations found in Applicants' independent claims upon which

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claims 9-10, 13-15 and 18-20 are dependent. Bickmore discusses a document re-authoring system, but does not disclose, teach or suggest the claim limitation discussed above that are missing from Guck. Accordingly, Applicants request the allowance of claims 9-10, 13-15, and 18-20.

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CONCLUSION

In view of the above, Applicants believe the pending application is in condition for allowance.

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